

THE WITCHES' PHARMACOPŒIA.

READ BEFORE THE
HISTORICAL CLUB OF THE JOHNS HOPKINS HOSPITAL,
APRIL 13, 1896.

BY

ROBERT FLETCHER, M. D.

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THE WITCHES' PHARMACOPŒIA.*

BY ROBERT FLETCHER, M. D.

The subject of this evening's paper is extraordinarily copious, and long-descended in its history. A belief in witchcraft characterized the earliest periods of which we have any record; it prevails among all savages or semi-civilized peoples at the present time, and is by no means extinct in otherwise intelligent communities. The cowardly fear and the resulting cruelties which have sprung from this strange superstition are too well known to need comment. In Merry England and in religious New England, men and women, old and young, the ministers of the Gospel, the clown and the philosopher, have perished at the stake or on the gallows, victims to this hideous delusion. A striking feature in the history of witchcraft is the fact that by far the greater number of its votaries were women, mostly old women. It is hard to find any explanation of this condition. King James I., in his *Demonologia*, ungallantly accounts for it by saying: "For as that sex is frailer than man is, so is it easier to be entrapped in these grosse snares of the Devil, as was over well proved to be true by the serpent's deceiving Eve in the beginning, which makes him the homelier with that sexe sensine."

The personal appearance of the typical witch was not attractive. Harsnet, in a work published in 1603, says a witch is "an old weather-beaten crone, having her chin and knees

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meeting for age, walking like a bow, leaning on a staff, hollow-eyed, untoothed, furrowed, having her limbs trembling with palsy, going mumbling in the streets; one that hath forgotten her paternoster, yet hath a shrewd tongue to call a drab a drab." (Declaration of Popish Imposture, 136.)

If she ventured out in the daylight she was pursued with obloquy. In Gay's fable of The Old Woman and her Cats, the poor creature exclaims:

Crowds of boys
 Worry me with eternal noise;
 Straws laid across my path retard;
 The horse-shoe's nailed (the threshold's guard),
 The stunted broom the wenches hide,
 For fear that I should up and ride.
 They stick with pins my bleeding seat,
 And bid me show my secret teat.

Your genuine witch was believed to be incapable of shedding tears, and if through torture she could be made to weep, her power had departed and she became a helpless victim to justice. King James says: "They cannot even shed tears, though women in general are like the crocodile, ready to weep upon every light occasion."

Old age was not always a necessary adjunct to witchcraft. Some of the famous witches of classical times, such as Canidia, Erichthoë, and Circe, were beautiful women. The first was a famous hetaira and was once the mistress of Horace.

Accounts are given in history and legend of wizards who practised their diabolical art, but they seem to have labored for more important purposes than their female rivals. In old chronicles, in popular story, and above all in the drama, it is the witch who figures as the minister of evil, and it is with her and her marvelous storehouse of materials we have to do to-night.

It is a mistake to suppose that these materials consisted only of offensive or grotesque substances—of "eye of newt and toe of frog." If the time permitted it would not be difficult to show that certain legendary qualities attached to them have come down from classic and pre-classic days. This will to some extent appear as we progress in the enquiry, for the literature of witch-

craft is very ancient, and it will be found that the same ingredients have been made use of through many ages to produce the like results. Astrology lent its aid, and plants which were under certain planetary influence, especially those belonging to the moon, acquired more potency in consequence. Old Culpepper, in his British Herbal, gives a list of over 500 plants with the planets which govern them. The doctrine of signatures too had its influence in the selection of ingredients for malevolent as well as for healing purposes, and if liver-wort or eye-bright were powerful for good, the lurid flowers and leaves of aconite, hemlock, henbane, and belladonna were manifestly suited for diabolic charms.

The term *pharmacopeia* made use of in the title of this paper, must be understood in its most comprehensive sense. It comprises substances from the vegetable and animal kingdoms, and the products of the atmosphere must be included.

In addition to its *materia medica*, witchcraft has its especial pharmacology. Not only must the materials be procured with certain magical forms and precautions, many of which are of Druidical origin, but the commixture must be made under spell and incantation. There are two divisions of the *pharmacopeia* of witches, of distinctly opposite qualities—one, and the most numerous, comprising noxious ingredients, and the other consisting of the ordinary healing remedies of popular medicine. The woman who made use of the latter was known as a "white witch." She removed warts, cured fits, counteracted the spells laid upon cattle, and was looked upon as a generally beneficent sort of neighbor. The grey witch was one who, as occasion required, practised either the kindly or the malevolent arts, and the black witch was one who dealt in the latter exclusively. A mere list of the materials employed by the malevolent witch would be wearisome, and it will be more interesting and convenient to select from the rich stores of the drama and of poetry some passages which refer to witches and their baleful arts. Some comments elucidatory of the qualities and the folklore history of the ingredients employed, will, I trust, be not uninteresting.

The play most familiar to us all in which witches play a tragic part is, of course, *Macbeth*. Thomas Middleton, a con-

temporary of Shakespeare, was the author of a drama called The Witch which is wonderfully rich in this particular lore. A comedy by Thomas Heywood, entitled The Late Lancashire Witches, was published in 1634. Another comedy entitled The Lancashire Witches, and Teague O'Divelly the Irish Priest, written by Thomas Shadwell, was first performed at the Duke's Theatre in 1682. The two latter plays were reprinted in 1853 by Mr. James Orchard-Halliwell, the celebrated Shakespearean scholar, only 80 copies being printed. This work is now extremely scarce. From these plays and from collateral writings my illustrations will be drawn.

It is proper to say that in neither of these dramas has the author devised the proceedings he describes from his own imagination, so far as the materials and methods employed are concerned. These have been borrowed largely, and in some instances literally, from Reginald Scot's Discoverie of Witchcraft, published in 1584. He, in his turn, had delved with wonderful diligence in fields of all kinds from classic days to his own, and this confirms what I have already stated as to the great antiquity of the folklore of witchcraft.

The famous incantation scene when the witches are expecting the approach of Macbeth, and have filled their cauldron with the most powerful ingredients of their art, is curious as exhibiting almost exclusively substances of animal origin. The only exceptions are "root of hemlock digg'd i' the dark," and "slips of yew silver'd in the moon's eclipse." Familiar as it is, it must be repeated in full for the sake of some comments upon the composition of the "hell-broth."

First Witch. Round about the caldron go ;
In the poison'd entrails throw,—
Toad, that under the cold stone
Days and nights hast thirty-one
Swelter'd venom sleeping got,
Boil thou first i' the charmed pot.

All. Double, double toil and trouble ;
Fire burn, and, caldron, bubble.

Second Witch. Fillet of a fenny snake,
In the caldron boil and bake ;
Eye of newt, and toe of frog,
Wool of bat, and tongue of dog,

Adder's fork, and blind-worm's sting,
 Lizard's leg, and howlet's wing,—
 For a charm of powerful trouble,
 Like a hell-broth boil and bubble.

All. Double, double toil and trouble;
 Fire burn, and, caldron, bubble.

Third Witch. Scale of dragon; tooth of wolf;
 Witches' mummy; maw and gulf
 Of the ravin'd salt-sea shark;
 Root of hemlock digg'd i' the dark;
 Liver of blaspheming Jew;
 Gall of goat; and slips of yew
 Silver'd in the moon's eclipse;
 Nose of Turk, and Tartar's lips;
 Finger of birth-strangled babe
 Ditch-deliver'd by a drab—
 Make the gruel thick and slab;
 Add thereto a tiger's chadron,
 For the ingredients of our caldron.

All. Double, double toil and trouble;
 Fire burn, and, caldron, bubble.

Sec. Witch. Cool it with a baboon's blood,
 Then the charm is firm and good.

The commentators have expressed some conjectures as to what the “poisoned entrails” were, but there is, I think, no doubt that the term applied to the entire ingredients of the cauldron. The toad figures constantly in necromantic charms, and its venom, if it have any, is supposed to reside in the glands of the skin. The blind-worm is the slow-worm, which is spoken of in Timon as the “eyeless venom'd worm.” As a matter of fact it is a harmless reptile. Mummy was formerly one of the articles of the pharmacopœias, and its virtue was doubtless due to the aromatics with which it was endued. Sir Thomas Browne, in his Urn-burial, says of it: “The Egyptian mummies which Cambyses or time hath spared, avarice now consumeth. Mummie is become merchandise. Mizraim cures wounds, and Pharaoh is sold for balsams.” The “gulf of the ravin'd salt-sea shark” is the stomach of that voracious fish. “Nose of Turk and Tartar's lips” seem to have no obvious qualifications, but it would be hard to find two lines of as concentrated expression as those which follow—

Finger of birth-strangled babe
 Ditch-delivered by a drab.

The "tiger's chaudron" means the entrails of the animal. The tiger is of great importance in Chinese medicine; for an attack of hydrophobia the skull, teeth and toes of the animal are ground up and given in wine.

This wonderful collection of "poisoned entrails" was to be cooled with a baboon's blood. The baboon, or *babian* of the Dutch, was a large and dangerous ape, described by travelers of those times as found in great flocks near the Cape of Good Hope. Monstrous stories were told of it by contemporary writers.

When in reply to Macbeth's demand for further prognostications of his fate, more charms became needful, the first witch says:

Pour in sow's blood, that hath eaten
Her nine farrow ; grease that's sweaten
From the murderer's gibbet throw
Into the flame.

In illustration of the first of these ingredients, Stevens quotes from Holinshed's History of Scotland, 1577, a law of Kenneth II. which provided that, "if a sowe eate her pigges let her be stoned to death and buried."

The fat or grease that drops from the body of the murderer hung in chains was one of the ingredients in the preparation of the "hand of glory," and it was also believed that where it fell the baleful mandrake sprang. Human fat was long believed to be a remedy for rheumatism and sprains. A German druggist once told me that it is still asked for, but that harmless goose-grease stiffened with spermaceti is the succedaneum, and when served from an antique jar with a mysterious inscription upon it, it gives great satisfaction.

Another and very important use of human fat was to anoint the body of a witch and thus enable her to soar through the air. This will be spoken of in more detail further on. In Middleton's play of The Witch, Hecate says to one of her followers :

There, take this unbaptised brat ;
Giving the dead body of a child.
Boil it well ; preserve the fat ;
You know 'tis precious to transfer
Our 'nointed flesh into the air,
In moonlight nights.

This play of Middleton's was discovered in manuscript in the last century. It contains incantation scenes very similar to those in Macbeth, and it has been a matter of debate with the commentators whether Shakespeare copied his witch scenes from Middleton, or Middleton copied from Shakespeare. There is no question of the superiority of the latter in the strength and sublimity of the passages, but it may become necessary for the followers of Mr. Ignatius Donnelly to insist that Lord Bacon also wrote Middleton's plays.

In The Witch, Hecate recounts the materials of her charms, which belong to the vegetable *materia medica*. Stadlin, her acolyte, says :

Where be the magical herbs ?
Hecate. They're down his throat ;
His mouth cramm'd full, his ears and nostrils stuff'd ;
I thrust in eleoselinum lately,
Aconitum, frondes populeas, and soot—
You may see that, he looks so black i' the mouth—
Then sium, acorum vulgare too,
Pentaphylon, the blood of a fitter-mouse,
Solanum somnificum et oleum.

These magical ingredients were crammed into the mouth and nostrils of the unbaptised babe before boiling him for his fat. The entire formula is taken almost literally from Reginald Scot's Discoverie of Witchcraft, and he obtained it from one of the curious works of John Baptista Porta, the Neapolitan, who wrote about everything that savored of superstition.

In the foregoing passage eleoselinum is the Apium petroselinum, or parsley. Sium is the winter-parsnip; acorum is calamus, which in the doctrine of signatures belongs to the stomach. Pentaphylon is the Greek name for the cinquefoil, or Potentilla reptans, its five leaves representing the five senses. The fitter-mouse, or flicker-mouse, is the bat. The populeas frondes are the leaf-buds of the poplar, till lately used as an ointment. The poplar was also a funeral tree. In another scene of the same play Hecate asks of her son Firestone :

Dear and sweet boy ! what herbs hast thou ?

Firestone. I have some marmartin and mandragon.

Hecate. Marmaritin and mandragora, thou wouldest say.

Firestone. Here's panax too, I thank thee—my pan aches I'm sure,

With kneeeling down to cut 'em.

Hecate. And selago.

Hedge-hyssop too ; how near he goes my cuttings !

Are they all cropt by moonlight ?

Firestone. Every blade of 'em,
Or I'm a moon-calf, mother.

Hecate. Hie thee home with 'em ;
Look well to the house to-night ; I'm for aloft.

Selago was a plant of much renown. It was probably the Club-moss, or *Lycopodium selago*, and was held in great repute by the Druids, who termed it Golden herb, or Cloth of Gold. It had to be gathered by a naked maiden on a moonlight night under a cloudless sky. When she touched the plant with her foot it was taken up with many precautions, and it conferred on the possessor the power of understanding the language of birds and beasts. There is a curious old print representing the damsel touching the plant with her foot while two Druid priestesses watch the proceeding. They are standing under an oak tree, and one of them holds a branch of mistletoe in her hand. The print has been reproduced by Mr. Folkard in his *Plant-Lore*. The hedge-hyssop is the Gratiola.

There is much folklore connected with parsley. The Greeks bestowed a crown of dried parsley on the victor at the Isthmian games. They strewed it also on the bodies of the dead. A despairing lover cries :

“ Garlands that o'er thy door I hung,
Hang withered now and crumbling fast ;
Whilst parsley on thy fair form flung,
Now tells my heart that all is past.”

Its ominous association with death no doubt accounted for its presence in necromantic compounds. It was also an emblem of generation, and the belief survives in the nurse's story to the children that the newly arrived infant was dug out of the parsley-bed. Of the mandragon or mandrake much will have to be said presently.

To return to Middleton's play. In the fifth act a Duchess, "on fell thoughts intent," enters the abode of Hecate, and finds the queen of witches before a caldron. This dialogue ensues:

Hec. What death is't you desire for Almachilde?

Duch. A sudden and a subtle.

Hec. Then I've fitted you.

Here lie the gifts of both, sudden and subtle ;
His picture made in wax, and gently molten
By a blue fire kindled with dead men's eyes,
Will waste him by degrees.

Duc. In what time, prithee ?

Hec. Perhaps in a moon's progress.

Duc. What, a month ?

Out upon pictures, if they be so tedious !
Give me things with some life.

Hec. Then seek no farther.

Duc. This must be done with speed, dispatch'd this night,
If it may possible.

Hec. I have it for you :
Here's that will do't; stay but perfection's time,
And that not five hours hence.

After further colloquy the Duchess leaves and Hecate proceeds to concoct her fatal mixture.

Hec. Give me some lizard's brain ; quickly, Firestone.
Where's grannam Stadlin, and all the rest o' th' sisters ?

Fire. All at hand, forsooth.

Enter Stadlin, Hoppo, and the witches.

Hec. Give me marmarin, some bear-breech ; when ?

Fire. Here's bear-breech and lizard's brain, forsooth.

Hec. Into the vessel ;
And fetch three ounces of the red-hair'd girl
I killed last midnight.

Fire. Whereabouts, sweet mother ?

Hec. Hip, hip or flank. Where's the acopus ?

Fire. You shall have acopus, forsooth.

Hec. Stir, stir about, whilst I begin the charm.
Black spirits and white, red spirits and gray,
Mingle, mingle, mingle, you that mingle may !
Round, around, around about, about !

All ill come running in, all good keep out !

First Witch. Here's the blood of a bat.

Hec. Put in that, O, put in that !

Sec. Witch. Here's libbard's-bane.

Hec. Put in again!

First Witch. The juice of toad, the oil of adder.

Sec. Witch. Those will make the younker madder.

Hec. Put in—there's all—and rid the stench.

Fire. Nay, here's three ounces of the red-haired wench.

Chorus. Round, around, etc.

Of the ingredients made use of for this potion intended to be fatal to the Duchess's husband or lover, the bear-breech deserves some notice. It is the Acanthus mollis, much employed for decorative purposes by the Greeks and Romans. Its leaves form the principal adornment of the capital of the Corinthian pillar. The story of its origin is too well known to need repeating. The oil of adder is probably not a product of the snake, but is the "green oyle" obtained by boiling the Adder's tongue, or Ophioglossum vulgatum, in olive oil. The herb was in great favor with witches. The libbard's-bane or leopard's bane, often called wolf's-bane, is the Aconite. In Ben Jonson's *Masque of Queens* is this verse:

I ha' been plucking, plants among,
Hemlock, henbane, adder's-tongue,
Night-shade, moonwort, libbard's-bane.

It is suggested by the commentators that the poison which the Apothecary sold to Romeo was Aconite. The latter demanded a poison so swift with action—

That the life-weary taker may fall dead,
And that the trunk may be discharged of breath
As violently as hasty powder fired
Doth hurry from the fatal cannon's mouth.

This is possibly confirmed by a passage in the second part of *Henry IV.*:

Though it do work as strong
As Aconitum or rash gunpowder.

It is a classic legend that Aconite sprung originally from the foam dropped from the mouth of Cerberus, the triple-headed dog of hell. The hood-shaped flower from which its name of monks-hood was derived, was in Scandinavian folklore known as "Thor's hat." Ben Jonson in his play of *Sejanus* (Act III.) describes a homœopathic use of Aconite:

I have heard that Aconite
 Being timely taken hath a healing might
 Against the scorpion's stroke ; the prooфе we'll give
 That while two poisons wrastle, we may live.

Henbane, the *Hyoscyamus*, was another plant of ill omen. Plutarch tells us that it was woven into a chaplet for the dead. Juno's horses were fed upon it, according to Homer, and it still holds a place in the veterinary pharmacopœia as a remedy for certain equine disorders. It is supposed to be the "insane root" which Banquo speaks of :

Have we eaten of the insane root
 That takes the reason prisoner ?

Old Bartholomæus says of it: "Henbane is called *insana*, mad, for the use thereof is perilous, for if it be eate or dronke, it breedeth madness, or slow lykenesse of death."

The yew-tree, from its sombre foliage and its constant presence in churchyards, had an evil repute. Shakespeare calls it "the double fatal yew," from the poisonous qualities of its leaves and from its wood being employed to furnish bows, the instruments of death. It was famous for the latter purpose. Browne writes of it as—

The warlike yeugh, by which more than the lance
 The strong-armed English spirits conquered France.

It was much used by the witches in their charms. Hecate announces to the aërial spirit:

With new fallen dew
 From churchyard yew
 I will but 'noint,
 And then I'll mount.

It has been thought that the "juice of cursed hebenon," which caused the death of Hamlet's father, was the juice of yew leaves. In Marlowe's *Jew of Malta* it is called "juice of hebon." Eben, hiben, were Norse names of the yew.

Hemlock, the *Conium maculatum*, is supposed to be the fatal poison administered to Socrates, Phocion and other Greeks condemned to death by the Areopagitica. It is a constant ingredient of the witches' charms.

The Deadly Nightshade, the *Atropia belladonna*, is a powerful poison also much used by witches. Those who partook

of it were seized with madness, during which they prophesied and saw visions. Possibly the dilatation of the pupils, the well known effect of atropine, accounted for this latter belief. The Solanum dulcamara, the common nightshade, had poisonous berries, but the root and stems were employed in medicine, though their use is, I suppose, now obsolete.

Among the ingredients employed by Hecate there are two which the commentators have given up in despair of their identification, namely, acopus and marmaritin. Nevertheless, both of them are mentioned by Pliny in his Natural History. Acopus, or acopos, he describes as "a stone like nitre in appearance, porous and starred with drops of gold. Gently boiled with oil and applied as an unguent it relieves lassitude, if we choose to believe it," he discreetly adds. Marmoritis he says is the plant Aglaophotis, which owes its name to the admiration in which its beauteous tints are held by man. "It is found growing among the marble quarries of Arabia on the side of Persia, a circumstance which has given it the additional name of Marmoritis" (from *marmor*, marble). "By means of this plant," he continues, quoting from Democritus, "the Magi can summon the deities into their presence when they please." It is interesting to observe a bit of Magian lore coming from ancient Persia preserved in the charm of a witch in the 17th century. The plant has not been identified, though it has been with some reason supposed to be the Peony. This handsome flowering plant was held in great esteem by the ancient Greeks. Its name Pæonia was derived from Pæan, the first physician who attended upon the divinities upon Olympus. According to Homer he healed the wounds of Ares and Hades. The name Pæon was also applied to Apollo, and a pæan was a song which celebrated his healing power. Pæonia, or the healing goddess, was also one of the names of Minerva.

The unhappy old women who were suspected of being witches were subjected to many well known ordeals to make them confess their diabolic powers. Even in very recent times there are accounts of ignorant rustics tying the thumbs and toes of a supposed witch together and throwing her into a pond, where if she floated she was a witch, and if she sank, as

was most likely, she usually died from the ill usage. It is gratifying to know that Matthew Hopkins, the notorious witch-finder, met his death in this manner at the hands of some country fellows who believed him to be a wizard. Hudibras refers to the miscreant's fate in these lines:

“Who after proved himself a witch,
And made a rod for his own breech.”

Hopkins' method was to probe all parts of the woman's body with pins or needles until he found the “witch spot,” which was insensible to pain. There is still to be seen in the courthouse of Salem, Massachusetts, a bottle of pins which had been used in this manner during the witch-hunting which led to the execution of twenty-two persons on Gallows-Hill in that city in 1692. In Shadwell's play of *The Lancashire Witches*, Sir Jeffery, a justice of the peace, says:

“Now, you Shocklehead, and you Clod, lay hold o' th' witch quickly. Now you shall see my skill; wee'l search her; I warrant she has biggs or teats a handful long about her parts that shall be namelese; then wee'l have her watched eight and forty hours, and prickt with needles, to keep her from sleeping, and make her confess; gad, shee'l confess anything in the world then; and if not, after all, wee'l tye her thumbs and great toes together and fling her into your great pond.”

The “biggs or teats”—bigg is an old English name for a cow's teat—refer to a curious belief. Every witch was supposed to have in some unseen part of her body a teat with which she nourished her own particular imp or familiar. There is no reference to it in ancient writers; it seems to have been a happy discovery of the English witch-finders.

In a scene of the same play the witches are relating to their master the Devil, who is in the form of a black goat, their several achievements. Mother Demdike says:

To a mother's bed I softly crept,
And while the unchristen'd brat yet slept,
I suckt the breath and a blood of that,
And stole another's flesh and fat,
Which I will boyle before it stink.

The use made of the fat of an unbaptised child has been already mentioned, but there is something to be said as to the sucking its breath. A cat, especially a black cat, was the familiar companion of the witch, and she was supposed to sometimes assume its form and suck a sleeping child's breath till she destroyed it. The common belief that a cat may perform this injurious act not improbably had its origin in the superstition that the creature was a witch in disguise.

Among the functions of witches, the preparation of philters, or love cups, which were to procure the affections of youth or maiden, played an important part. It must be said that the ingredients of these charms were obscenely nasty, and most of them may well be omitted from notice. In the same scene of the play just quoted, Mother Spencer says:

To make up love-cups, I have sought
A wolf's tayle-hair and yard ; I've got
The green frog's bones, whose flesh was ta'en
From thence by ants ; then a cat's brain ;
The bunch of flesh from a black foal's head,
Just as his dam was brought to bed,
Before she lickt it.

The bunch of flesh upon the newborn foal's head is the Hippomanes, concerning which some wondrous beliefs were held. It was of black color, the size of a fig, and if it was removed artificially instead of being licked off by the mother-mare, she refused to allow the foal to suck. Virgil, Ovid, and other classical authors speak of it as a famous aphrodisiac and much employed in the preparation of love philters. Thus there is another instance of the antiquity of the witches' materials. Cuvier says that the hippomanes is a concretion sometimes found in the liquor amnii of the mare, and is eaten by her just as the placenta is eaten by many animals after parturition.

Further on, one of the persons of the play says: "Fennel is very good in your house against spirits and witches; and alicium, and the herb mullein, and longwort, and moly, too, is very good."

Fennel was given to the victors in the Isthmian games, and on account of its pleasant odor and graceful tendrils it is used

even now as a decoration for the table. It was hung on doorways to keep away evil influence. Mullein, the Verbascum thapsus, from its woolly fibres was readily inflammable, and its stalks dipped in suet made a candle which was known as hig- or high-candle, and by corruption, hag-candle. The ancient Romans called the plant Candelaria, and used it as a torch at funerals. In Italy it is still called Light of the Lord.

Alicium has not been identified.

Longwort is the Pulmonaria or lungwort, sometimes known as the Jerusalem cowslip. From its spotted leaves it was, under the doctrine of signatures, held to be a remedy for diseased lungs.

Much has been written about the herb Moly, which is the last named in this passage. It was first mentioned by Homer as the remedy given by Hermes to Ulysses to enable the latter to withstand the enchantments of Circe. It has been thought to be a species of Allium or garlic. It is worth noting that most of the preservatives against evil influences were strong aromatics.

In the same scene Mother Demdike and her excellent sisters give us some further insight into their pharmacopœia:

Demd. Oyntment for flying here I have,
Of children's fat stoln from the grave,
The juice of smallage and nightshade,
Of poplar-leaves and aconite made ;
With these
The aromatick reed I boyl,
With water-parsnip and cinquefoil,
With store of soot, and add to that
The reeking blood of many a bat.

Mother Dickinson. From the sea's slimy owse a weed
I fetched to open locks at need.
With coats tukt up, and with my hair
All flowing loosely in the air,
With naked feet I went among
The poisonous plants, there adders-tongue,
With aconite and martagon,
Henbane, hemlock, moon-wort too,
Wild fig-tree that o'er tombs do's grow,
The deadly nightshade, cypress, yew,
And libbard's-bane, and venomous dew,
I gathered for my charms.

Mother Hargrave.

And I

Dug up a mandrake, which did cry ;
Three circles I made, and the wind was good,
And looking to the west I stood.

Most of these plants have already been commented upon. Smallage is our familiar celery, which has appropriately fallen from a witch's ingredient into a preposterous quack remedy of the present day. What kind of weed it was "from the sea's slimy owse" which would open locks, I cannot tell. It was a part of the ceremonial to go with naked feet and hair unbound when gathering magic herbs.

The Martagon is the Moonwort, the *Botrychium lunaria*. If placed in a key-hole it had the power of opening the lock. This fabulous quality is described by Pliny in his account of the plant. It is perhaps the same as the Springwort, famous in German legend for its use in opening treasure-chests. The legends connected with the fig-tree are very ancient and numerous. Under its boughs Adam concealed himself after tasting the forbidden fruit. Each blossom was inhabited by an evil spirit. In this particular instance it was a fig-tree that had grown over a tomb.

All of the herbs mentioned in the foregoing passage are described as magical herbs by Porta, Paracelsus and Agrippa.

A characteristic bit of malice on the part of the witches is described further on in the play of *The Late Lancashire Witches*, by Heywood and Brome, 1624. Joan has been preparing a dinner for some guests, when she breaks in upon them with this mournful story :

Joan. O husband, O guests, O sonne, O gentlemen, such a change in a kitchen was never heard of ; all the meat is flown out o' the chimney-top, I thinke, and nothing instead of it but snakes, batts, frogs, beetles, hornets and bumble bees ; all the sallots are turned to Jewes ears, mushrooms, and puckfists ; and all the custards into cowsheards.

The salads provided for this unlucky feast were all turned into fungi of various evil characters. The Jews' ears is the *Auricula Judæ*, a fungus resembling the human ear, which grows upon the elder, on which tree Judas was said to have hanged himself. The puckfist is the common puff-ball. Cow-sheards, or cowshards, is cow-dung.

In a beautiful fragmentary play of Ben Jonson's, *The Sad Shepherd*, a similar scene is described. The hunting has been successful and the venison is laid before the fire, when a malignant witch, Maud, enters and utters this curse:

- Maud.* The spit stand still, no broches turn
Before the fire, but let it burn
Both sides and haunches, till the whole
Converted be into one coal.
- Clarion.* What devil's paternoster mumbles she?
- Aiken.* Stay, you will hear more of her witchery.
- Maud.* The swilland dropsy enter in
The lazy cuke and swell his skin;
And the old mort-mal on his shin
Now prick and itch withouten blin.
- Clarion.* Speak out, hag, we may hear your devil's matins.
- Maud.* The pain we call St. Anton's fire,
The gout, or what we can desire
To cramp a cuke in every limb,
Before they dine, yet seize on him.

The "swilland dropsy" is the watery dropsy. The "mort-mal" is a term used by Chaucer, and means an ulcer; so "the old mort-mal on his shin" is a chronic ulcer of the leg, which was to prick and itch withouten blin—that is, without ceasing—an appropriate torment for the cook, whose function required him to stand almost continually. What disease was meant by St. Anthony's fire has been much debated. It is most probable that it was ergotism, the Kriebelkrankheit of the Germans, a dry gangrene of the extremities, the effect of the continued use of rye-flour containing ergot. "Saint Anton fire thee!" was a common form of malediction.

It is an ancient belief that witches had power over the moon and could cause its light to change or disappear under the influence of their spells. Prospero describes Caliban's mother, "the foul witch Sycorax," as one "so strong that could control the moon." Centuries before Shakespeare's time the same belief prevailed, for Aristophanes introduces it in his comedy of *The Clouds*. Strepsiades tells Socrates that he has a plan to do away with paying of interest, for, says he:

If I were to buy a Thessalian witch, and draw down the moon by night, then shut her up in a round helmet-case like a mirror, and keep watching her—

Soc. What good would that do you then?

Strep. What? If the moon were not to rise any more anywhere, I should not pay the interest.

Soc. Because why?

Strep. Because the money is lent by the month.

The time of the full moon was especially favorable for gathering herbs for use in spells. In The Merchant of Venice, Jessica, sitting with the amorous Lorenzo in the brilliant light of the full moon, says:

On such a night
Medea gathered the enchanted herbs
That did renew old Jason.

The belief in astrology, as prevalent in classic as in recent times, had much to do with the witches' *materia medica*. The signs of the zodiac, with their fantastic relations to the human body, are still regarded with belief in their importance. A story is told of a well-to-do farmer who was ordered a purgative but who would not swallow it because he had looked in the almanac and seen that the sign for the month was in *bowels*, and he thought the two together would be too much for him.

Of all plants possessing necromantic endowments, the mandrake is the most famous. In our present pharmacopæias the name is appropriated to the harmless *Podophyllum*, but the old herbals term it the *Atropa mandragora*, its first name being derived from Atropos, one of the dreaded Parcæ. There are numerous allusions to it in the classic writers, and a well known one in Genesis, chapter xxx. The lad Reuben brings home mandrakes to his mother Leah. The barren Rachel begged them of the latter, and even gave up her husband Jacob for the night to her more fruitful rival, trusting doubtless to the supposed power of the root to cure sterility. There were said to be two forms of the mandrake, the male plant, which had a pleasant perfume, and the female, of which the leaves were large and had a rank odor. Cruden in his Concordance suggests that Reuben would naturally bring home to his mother only the sweet smelling plants of the harvest field, and the only other reference to the mandrake in the

Bible is in Canticles vii. 13, where it is said, "The mandrake gives a smell, and at our gates are all manner of pleasant fruits."

The account given of the mandragora by Pliny is interesting from a far-away hint at an anæsthetic. "It is given," he says, "before incisions or punctures are made in the body, in order to ensure insensibility to pain. Indeed, for this last purpose the odor of it is quite sufficient to induce sleep." It has been thought that the mandrake was identical with the Eryngium, a root which had a fancied resemblance to the genitals, and which Pliny says had been administered to Sappho and was the cause of her passionate love for Phaon.

Joannes Wierus, in his *De presagiis dæmonum*, Basel, 1563, states that Josephus describes a root called in the Hebrew, Baaras, which in the evening emits sparks of light. Like the mandrake, its extraction from the earth is attended with swift death to the person attempting it. To avoid this danger, a young dog which was kept without food for twenty-four hours was fastened to the root with a string, and upon meat being placed in advance of him he naturally rushed towards it, drawing out the root thereby. If the sun shone on the root the dog died suddenly, and was buried with secret ceremonies. A favorite habitat for the mandrake was the earth at the foot of a gibbet, the fat which dropped from the murderer's body encouraging its growth; when drawn from the ground it emitted shrieks like the cries of a human being, and death or madness fell upon the rash experimenter. It was partly a plant and partly an evil spirit, and it may be well supposed that with all these qualities it was a choice ingredient for the witches' potions.

There is preserved at Vienna, so Dr. Danberry relates, a manuscript copy of the work on *Materia Medica* of the Greek physician Dioscorides, who lived in the first or second century. It contains a curious drawing representing the goddess Discovery presenting to the author a mandrake freshly plucked from the earth. The root has an entirely human appearance, and the dog which had been employed to extract it is lying dead on the ground. The manuscript is of the fifth century.

The English romance-writer, William Harrison Ainsworth, who was deeply read in witch-lore, has embodied these beliefs regarding the mandrake in a spirited ballad, part of which may be quoted :

At the foot of the gibbet the mandrake springs,
Just where the creaking carcase swings ;
Some have thought it engendered
From the fat that drops from the bones of the dead ;
Some have thought it a human thing,
But this is a vain imagining.
And whether the mandrake be create
Flesh with the flower incorporate,
I know not ; yet, if from the earth 'tis rent,
Shrieks and groans from the root are sent ; . . .
Whoso gathereth the mandrake shall surely die ;
Blood for blood is his destiny.
Some who have plucked it have died with groans
Like to the mandrake's expiring moans ;
Some have died raving, and some beside
With penitent prayers—but *all* have died.
Jesu ! save us by night and by day
From the terrible death of mandragora !

Certain portions of the human body played an important part in the charms prepared by witches, such as the hair, the nails, blood, saliva, etc. Most of these entered into the composition of philters or love potions. If a love-sick maid could administer, in a cake or bread, cuttings from the hair or nails of the desired youth mixed with similar portions from her own person, he was certain to become madly in love with her. Among many tribes of North American Indians it is a custom still prevailing to bury the parings of the nails and portions cut from their hair, lest they should be employed for hurtful purposes. Dalyell, in his "Darker Superstitions of Scotland," relates that a young woman was indicted by the judicatures of Leipzig in 1623 for administering an amatory charm of bread compounded with hair and nails to a man whom it sickened (p. 219). The most important use of the human body was in the preparation of the unguent with which the witch anointed her body to enable her to fly through the air on her forbidden errands. Allusion has been made to this in some of the passages already quoted. John Wier, whose work is a perfect

treasury of witch-lore, says that the proper method was to boil an unbaptised child in a caldron. The thick part of the concoction was made into an unguent, and the thinner part was bottled. "Whoso drank of the latter became immediately a companion of the order, a great clerk and master." Jerome Cardan gives a formula in which the fat of a child is mixed with parsley, aconite, cinquefoil, belladonna and soot. Probably the earliest specific account given of the use of such an ointment is to be found in *The Golden Ass* of Apuleius, written in the second century. Lucius, the hero, by the connivance of the waiting-maid, watches his hostess, a famous witch, while performing her necromantic rites in the privacy of her chamber at midnight. She anoints her body with an unguent, whereupon feathers and wings spring out, and thus transformed into a bird she flies out of the window. Lucius, determined to try the experiment upon himself, persuades the maid to bring him the ointment. She unintentionally fetches a different jar, and poor Lucius, to his horror, finds himself transformed into an ass. His adventures after being thus transmogrified form the subject of this celebrated romance.

Toward the end of the 16th century there flourished in Scotland a notable wizard named Doctor Fian, who was a schoolmaster. He became enamored of a young lady of great beauty, whose brother was one of his pupils. Failing to ingratiate himself with the sister, he resorted to "conjuring, witchcraft and sorcerie." The rest of the story shall be told as it is related in Pitcairn's *Criminal Trials of Scotland*, I, 213. So, "calling the said scholler to him demanded if he did lie with his sister, who answered he did: By means whereof he thought to obtain his purpose; and therefore secretly promised, to teach him without stripes, so he would obtain for him three haire from his sisters privities, at such times as he should spie best occasion for it, which the youth promised faithfully to perform, and vowed speedily to put it in practise, taking a piece of conjured paper of his master to lay them in, when he had gotten them: and thereupon the boy practised nightly to obtain his masters purpose, especially when his sister was asleep. But God, who knoweth the secrets of all

harts, and revealeth all wicked and ungodly practises would not suffer the intents of this divelish Doctor to come to that purpose which he supposed it woulde; and therefore to declare that hee was heavily offendid with his wicked intent, did so work by the gentlewomans owne meanes, that in the end the same was discovered and brought to light: for shee being one night a sleepe, and her brother in bed with her, sodainly cried outt to her mother, declaring that her brother wolde not suffer her to sleepe: Whereupon her mother having a quicke capactie, did vehemently suspect Doctor Fians intention, by reason she was a witch of herself; and therefore, presently arose, and was very inquisitive of the boy to understand his intent: and the better to know the same did beate him with sundrie stripes, whereby he discovered the truth unto her. The mother, therefore, being well practised in witchcraft, did thinke it most convenient to meeete with the Doctor in his own arte: and thereupon took the paper from the boy, wherein hee should have put the same haire, and went to a yong heyfer which never had borne calfe, nor gone unto the bull, and with a paire of sheeres clipped off three haire from the udder of the cow, and wrapt them in the same paper, which shee again delivered to the boy: then willing him to give the same to his sayde master, which hee immediately did. The school maister, so soone as he had received them, thinking them indeed to be the maidis haire, went straight and wrought his arte upon them. But the Doctor had no sooner done his intent to them, but presently the hayfer cow, whose haire they were indeede, came unto the door of the church wherein the school maister was, into the which the hayfer went, and made towards the school maister, leaping and dauncing upon him, and following him forth of the church, and to what place soever he went; to the great admiration of all the townes men of Saltpans, and many others who did beholde the same. The report whereof made all men imagine he did worke it by the Devill, without whome it coulde never have been sufficiently effected: and thereupon the name of the saide Doctor Fian (who was but a young man) began to growe common among the people of Scotland, that he was secretly nominated for a notable conjurer."

There were other charges brought against the wizard at his trial beside the foregoing one, and the result was that the luckless doctor was burned at the stake in Edinburgh in January, 1591.

A cognate subject of investigation to that which we have been pursuing is the preservation against the power of witchcraft. It would lead us too far afield for the present occasion, and a very brief notice must suffice. English county folklore abounds in spells which had a protecting power, and plants under especial planetary influences were largely employed. They were purposely cultivated in domestic gardens, and many of the most beautiful flowering plants which have spread throughout England, and are to be found also in our own land, were brought from Palestine and Syria, and were first found in the extensive gardens of the monasteries. Among them were the wall-flower, the scarlet anemone or blood-drops of Christ, the blooming almond-tree, one of the symbols of the Virgin, and the marigold. These with many others found their place in art and are to be seen in illuminated breviaries and in paintings, and were in high repute as preservatives from evil spells.

One of the most famous of these preservatives was the St. John's wort, or Hypericum. An old distich tells us that—

Trefoil, vervain, John's wort, dill,
Hinder witches of their will.

Baldur, the White God of the Norse Valhalla, was replaced in Christian days by St. John the Baptist. He was called the White Saint John in some old German and Gallic calendars. There are many relics of sun-worship still practised in Europe on St. John's day. Flowers with large sun-like discs were sacred to Baldur, and later to St. John the Baptist, and it was thus that the Hypericum obtained its name of St. John's wort and was believed to have especial power in repelling evil influences. From its handsome yellow flowers it obtained the name of the Rose of Sharon. Boiled in wine or ale it was a popular remedy for spitting or vomiting of blood. In Norway red spots on the plant are called St. John's blood, and are supposed to make their appearance on the day of his beheading, August 29th.

The Ash tree, and particularly the Rowan, or mountain ash, had a like celebrity, and sprigs of the latter were sewn in the dresses of children to protect them from ill. Rustics in Scotland still take with them a branch of Rowan tree when going a-milking, to prevent witches from drying up the cows.

The Vervain, or Verbena, was also a sacred herb. It was gathered with certain observances, and this verse was repeated during the process:

Hail to thee, Holy Herb!
 Growing on the ground;
 On the Mount of Olivet
 First wert thou found.
 Thou art good for many an ill,
 And healest many a wound;
 In the name of sweet Jesu
 I lift thee from the ground.

Other protecting plants were the Cyclamen, Pimpernel, Angelica, Bracken, Fern, Rue, Broom, Maiden-hair, Agrimony and Ground-ivy. Yellow or green flowers growing in hedge-rows are especially repugnant to witches.

The Ash tree has a use in medicine which I fear is forgotten in these days. In the curious early Welsh book of treatment known as The Physicians of Middvai, written early in the 13th century, is a remedy for "Ulceration of the Ears," probably our otorrhœa. "Take the seed of the Ash, otherwise called the Ashen-keys, and boil briskly in the water of the sick man; foment the ear therewith, and put some therein on black wool." It is prudently added, "By God's help it will cure it." Black wool is an ingredient in many charms.

The English Folk-Lore Society recently published a reprint of a cutting from an old newspaper, without date, which describes the medical treatment of a woman who had been bewitched. It is a veritable curiosity in therapeutics, but it is to be thought that now-a-days we should call the affliction *hysteria*, and not bewitchment.

"They then gave to the said Magdalen Holyday the following medicines:—Imprimis, a decoction—ex fuga Daemonium (St. John's wort)—of Southernwood, Mugwort, Vervain, of

which they formed a drink according to Heuftius' Medical Epistles, lib. xii., sec. iv., also following Variola, a physician of great experience at the Court of the Emperor. They also anointed the part with the following embrocation:—Dog's grease well mixed, four ounces; bear's fat, two ounces; eight ounces of capon's grease; four and twenty slips of mistletoe, cut in pieces and powdered small with gum of Venice turpentine, put close into a phial, and exposed for nine days to the sun till it formed into a green balsam, with which the said parts were daily anointed for the space of three weeks, during which time, instead of amendment, the poor patient got daily worse, and vomited, not without constant shrieks or grumbling, the following substances:—Paring of nails, bits of spoons, pieces of brass (triangular), crooked pins, bodkins, lumps of red hair, egg-shells broken, parchment shavings, a hen's bone of the leg, one thousand two hundred worms, pieces of glass, bones like the great teeth of a horse, a luminous matter, sal petri (not thoroughly prepared), till at length relief was found, when well nigh given up, when she brought up with violent retching, *a whole row of pins stuck on blew paper!* After that, these sons of Æsculapius joyfully perceived that their potent drugs had wrought the designed cure—they gave her comfort, that she had subdued her bitter foe, nor up to the present time has she been afflicted in any way; but having married an honest poor man, though well to do in the world, being steward to Sir John Heveningham, she has borne him four healthy children. . . . Whether this punishment was inflicted by the said old woman an emissary of Satan, or whether it was meant wholesomely to rebuke her for frequenting wakes, may-dances, and Candlemas fairs, and such like pastimes, still to me remains in much doubt. ‘Non possum solvere nodum.’

P. S.—I hear the physicians followed up their first medicine with castory, and rad. ostrutii and sem. danci, on Fores-tius' his recommendation.”

The radix ostrutii was, I suspect, the root of Imperatoria ostruthium, or Masterwort. It is regarded as a powerful stimulant and emmenagogue, and such was its reputation that it was termed *remedium divinum*. The *semina danci* must be

a misprint for *semina dauci*, the seeds of the carrot, which were held to be diuretic and aromatic. Forestius's work, published in 1589, is a collection of curious cases with still more curious treatment.

The Elder-tree has been mentioned in some of the previous passages, and there were many strange superstitions connected with it. The "fox-headed Judas," as an old writer termed him, alluding to the color of his hair, was believed to have hanged himself upon an Elder tree, and that entirely credible writer, Sir John Maundeville, declares that he saw the veritable tree while in the Holy Land. There is a curious bit of folklore relating to the Elder, well known no doubt to the witches, who rode on broomsticks in their night journeys. Coles, in his "Art of Simpling," 1656, says:

"It hath been credibly reported to me from several hands, that if a man take an Elder stick, and cut it on both sides, so that he preserve the joyn't, and put it in his pocket when he rides a journey, he shall never gall." Richard Fleckno, in his *Diarium*, 1658, also tells us:

How Alder-stick in pocket carried
By horseman who on highway feared [fared],
His breech should nere be gall'd or wearied,
Although he rid on trotting horse,
Or cow, or cowl-staff, which was worse.
It had, he said, such vertuous force,
Whose vertue oft from Judas came,
(Who hang'd himself upon the same,
For which, in sooth, he was to blame)
Or 't had some other magick force
To harden breech, or soften horse,
I leave 't to th' learned to discourse.

In The Athenian Oracle, once edited by Samuel Wesley, brother of the famous John Wesley, is a confirmatory story. "A friend of mine," says the relater, "being lately upon the road a horseback, was extremely incommoded by loss of leather; which coming to the knowledge of one of his fellow travelers, he over-persuaded him to put two Elder sticks into his pocket, which not only eased him of his pain, but secured the remaining portion of posteriors not yet excoriated, throughout the rest of his journey."

It is much to be desired that this very valuable information should be made known to the members of the Hunt and to young cavalrymen going into the field.

In conclusion, it may be said as worthy of observation that the witches in Middleton's play, as well as those who figure in the other dramas from which quotations have been given, are of a somewhat vulgar type. Their purposes are purely malicious. Their names even are appropriate to their character. They are spoken of as Mother Bombey, Mother Demdike, Mother Sawyer, and the like. In Macbeth they are simply the "three weird sisters." The only one named is their queen, Hecate. They appear suddenly on the heath of Forres, in thunder and lightning, and after their fell work is done they vanish to aerial music. Their purpose, though malignant in the extreme, is of a lofty kind. They inspire Macbeth with ambitious hopes which lead him to the murder of the "gracious Duncan," and after a career of bloody tyranny end in his own destruction. There is in this the leading feature of the Grecian tragedy, that of irresistible fate. This is Shakespeare's method of handling the subject. The ordinary witch dreads the constable and the justice, but, as Charles Lamb observes, it would be "a hardy sheriff with the power of a county at his back, that would lay hands on the weird sisters."

In the play of The Witch of Edmonton, written conjointly by Rowley, Decker and Ford, there is a strong passage which, I think, must have been written by Ford. The witch has lost her familiar imp, who had been sent to perform some diabolic work, and she invokes his return thus:

Not see me in three days?
I'm lost without my Tomalin ; prithee come ;
Revenge to me is sweeter far than life ;
Thou art my raven, on whose coal-black wings
Revenge comes flying to me ; O, my best love,
I am on fire (even in the midst of ice)
Raking my blood up, till my shrunk knees feel
Thy curl'd head leaning on them. Come then, my darling.
If in the air thou hoverest, fall upon me
In some dark cloud ; and as I oft have seen
Dragons and serpents in the elements,

Appear thou now to me. Art thou i' the sea?
 Muster up all the monsters from the deep,
 And be the ugliest of them : so that my bulch*
 Show his swarth cheek to me, let earth cleave,
 And break from hell, I care not : could I run
 Like a swift powder-mine beneath the world,
 Up would I blow it, all to find out thee,
 Though I lay ruin'd in it.—Not yet come?

The raven, alluded to in this passage, from his solemn hoarse voice and sable plumage, has been at all times regarded as a bird of ill omen. His croak announced approaching death. Marlowe, in his Jew of Malta, describes him as—

The sad presaging raven, that tolls
 The sick man's passport in her hollow beak ;
 And in the shadow of the silent night
 Doth shake contagion from her sable wings.

Lady Macbeth, sure of herself in the intended tragedy, exclaims :

The raven himself is hoarse
 That croaks the fatal entrance of Duncan
 Under my battlements.

In the Korán (Sura V, 30-35, Sale) the raven is connected with the murder of Abel. Cain did not know how to conceal the body of his slaughtered brother, but, says the text, “God sent a raven, which scratched the earth to show him how he should hide the shame of his brother. And he said, ‘Woe is me! am I unable to be like this raven, that I may hide my brother's shame?’”

The feathers of the bird had their appropriate uses, and Caliban in his curse exclaims :

As wicked dew as e'er my mother brush'd
 With raven's feather from unwholesome fen,
 Drop on you both.

* Bulch, bulchin, an urchin, a hobgoblin.

